Claims

While the present invention has been described above in terms of specific embodiments, it is to be understood that the invention is not limited to the disclosed embodiments. The present invention is intended as an actionable framework for various modifications and equivalent structures included within the spirit and scope of the appended claims. In particular, similar design is noted for ship cargo, space cargo and rail cargo.

I, the inventor claims:

1. One data processing apparatus capable of linking to various carrier cargo systems and agents/users' terminal for determining a price of an freight service option, to offer for sell or trade and exercise of such option once created in an exchange environment where both buyers/sellers are electronically visible, having a pre-assigned user accounts, each comprising:

a central controller including a CPU and a memory operatively connected to said CPU;

at least one user terminal, adapted for communicating with said central controller, for transmitting to said controller determining option pricing

information including but not limited to the date of departure, flexibility, type of cargo and route criteria.

at least one carrier cargo system terminal networked with flight passengers reservation system, adapted for communicating with said central controller, for transmitting to said controller information including but not limited to the loading capacity of the schedule flight, demand rate, loyalty of the customer/option buyer, standard deviation of the freight price for this particular route, the weather forecast on this particular route on a particular date, the coincidence of holiday period for date of departure, type of plane, number of competition on this route,

Said memory in said central controller containing a program, adapted to be executed by said CPU, for calculating a price of an freight facility option to pay for within a future period, for a particular route including but not limited to the loading capacity of the schedule flight, demand rate, loyalty of the customer/option buyer, standard deviation of the freight price for this particular route, the weather forecast on this particular route on a particular date, the coincidence of holiday period for date of departure, type of plane, number of competition on this route, which satisfied the customer/buyer requirements,

Wherein said central controller receives said criteria/factors from said user/agents terminal and queries carrier cargo system based on part the factors

presented by user/agent, and carriers' respective reservation systems, receives real-time feedback and calculates the option price based upon the criteria/factors above as updated from time to time,

databases containing registered users account including past transaction records of any sale and purchase of options and terms, said accounts having protected passwords and login sequence,

databases containing searchable functions as well as viewable tables where options are posted for sale and bids are placed to attract sellers

2. The apparatus according to claim 1, wherein said program in said memory is adapted to receive a client request input via said user terminal to purchase or sell the option, search other options, offer for sale, offer to buy and further adapted to perform a credit card transaction to sell or buy the option for the client.

3. The apparatus according to claim 2, wherein said program in said memory is adapted to receive a directed customer request input via said user terminal to exercise an option and further adapted to perform a credit card transaction to sell to the customer in accordance with the terms of the option.

4. A method and process of determining a price of a freight cargo option for a fixed route using a central controller including a CPU and a memory operatively

connected to said CPU and containing a program adapted to be executed by said CPU for determining the price of the option, with at least a user terminal and a carrier cargo systems terminal networked to corresponding reservation system adapted for communicating with said CPU, the method comprising the steps of:

inputting the departure date, type of cargo, flexibility and route information criteria to the controller via the user terminal;

based on above input data by user, controller will query the cargo system for the loading capacity of the scheduled flight as connected to the departure data and type of plane, its demand rate, check the loyalty of the particular user, calculates the standard deviation of the freight price for this particular route, query the forecasted weather on this particular route, check the coincidence of holiday period for date of departure, check the number of competition on this route and return all this information to controller from the cargo system terminal;

Combining all the information from said user and carrier cargo systems, the central controller shall execute a program to calculate a price of a freight cargo option that gives the customer a right to pay for but not obligation within a future said period equal or less to the period before the departure date, for a particular route which satisfied the route information and date of departure by having the CPU execute said program; and outputting the option price to the user terminal.

5. A data processing apparatus for determining the price of an option to pay for an air cargo freight service, comprising:

a CPU ; and

a memory operatively connected to said CPU, said memory containing a program adapted to be executed by said CPU and said CPU and memory co-operatively adapted to receive option pricing information inputs, and to calculate a price of the option to pay for within a future period, for a particular freight route, a cargo freight service satisfying the option pricing information inputted by user and carrier cargo system.

6. The apparatus according to claim 5, wherein said program is adapted to receive option pricing information comprising the date of departure, type of cargo, flexibility and route information criteria from user, the loading capacity of the schedule flight, demand rate, loyalty of the user, standard deviation of the freight price for this particular route, the forecasted weather on this particular route, the coincidence of holiday period for date of departure, and type of plane, and number of competition on this route from the cargo system;

7. The apparatus according to claims 5, wherein said program in said memory is adapted to receive at least one of first information describing a desired number of weeks before departure, second information concerning the expected demand on the route, and third information concerning the volatility of the freight prices,

and fourth the loyalty of the user, and fifth the flexibility of the user's route, sixth the loading capacity of the plane at the time of query, seventh the predicted weather prevailing on the date of departure, eighth the timing of the flight, ninth the type of cargo, tenth the type of plane and eleventh the number of competition and wherein said program is further adapted to use at least one of said information, said second information, and said third information, said fourth information, said fifth information, said sixth information, said seven information, said eight information, said ninth information, said tenth information, said eleventh information to calculate the option price.

8. The apparatus according to claim 5 wherein said program in said memory is adapted to receive an indication that a customer has purchase or sale the option and further to update a database to reflect the sale or buying of the option.

9. The apparatus according to claim 5 wherein said the program in said memory is adapted to calculate the option price based at least in part on the number of similar options already sold or bought for a particular route and carrier using information stored in an option database.

10. The apparatus according to claim 5, wherein the said program in said memory is adapted to calculate to option price based at least in part on the formula:

Option price = LC*D*L*C*R*V*W*T*Q*A*CO

where LC is the load capacity times the base price for the option, D is a factor related to a desired number of weeks before departure date, L is a factor concerning the expected demand on the requested route, C is a factor concerning loyalty, R is a factor concerning flexibility, V is a factor concerning the volatility of the freight cargo prices, W is a factor concerning the weather on the departure date, T is a factor concerning timing of flight date such as in holiday period or otherwise, Q is factor for type of cargo, A is for type of plane and CO is for number of competition on the same route.

11. A method of determining a price of the cargo option using a central controller including a CPU and a memory operatively connected to said CPU containing a program, adapted to be executed by said CPU for determining a price for the option, the method comprising the steps of :

inputting departure date;

inputting type of cargo and flexibility for this route criteria provided by a user or customer ;

querying the above data with a carrier cargo system to receive data on load capacity of a chosen plane, demand for this flight, check the loyalty of this customer, calculate the standard deviation of cargo prices up to that time for this flight, check the predicted weather on this departure date, check whether the departure date may coincidence with any public holiday or weekends, check the type of plane available on this route and finally the number of competition for

this flight and with all these data, calculating the price of an option that gives the right to pay for but not the obligation within a future period for a particular route, a route satisfying the departure date and the criteria provided by the cargo systems by having the CPU execute said program; and outputting the option price,

12. A method of determining a price of the cargo option, comprising the steps of:

receiving option pricing information relative to future purchase for the particular route;

calculating the price for an option to pay for within a future period, for a particular route, satisfying the option pricing information above; and outputting the option price.

13. The method according to claim 12, wherein the step of receiving option pricing information includes receiving the date of departure and type of cargo and flexibility for this route criteria provided by a user or customer; querying the above data with a carrier cargo system to receive data on load capacity of a chosen plane, demand for this flight, check the loyalty of this customer, calculate the standard deviation of cargo prices up to that time for this flight, check the possible weather on this departure date, check whether the departure date may coincidence with any public holiday or weekends, check the type of

plane available on this route and finally the number of competition for this route.

14. The method according to claim 12, further comprising of the steps of: receiving at least one of first information describing a desired number of weeks before departure, second information concerning the expected demand on the route, and third information concerning the volatility of the freight prices, and fourth the loyalty of the customer, and fifth the flexibility of the customer's route, sixth the loading capacity of the plane, seventh the weather prevailing on the date of departure, eighth the timing of the flight, ninth the type of cargo, tenth the type of plane and eleventh the number of competition and wherein said program is further adapted to use at least one of said information, said second information, and said third information, said fourth information, said fifth information, said sixth information, said seven information, said eight information, said ninth information, said tenth information, said eleventh information to calculate the option price.

15. The method according to claim 12, further comprising the steps of receiving an indication that a customer has purchased the option or offer for sale this option or put a bid for an option and updating a database to reflect any transaction affected with any the options by the carrier or with another seller.

16. The method according to claim 12, further comprising the step of receiving option sales in formation from an option database indicating a number of similar options that have been previously sold or written, and wherein the calculating steps uses the option sales information in determining the option price.

17. The method according to claim 12, further comprising the steps of receiving a customer request to purchase an option, receiving tender of the purchase from the customer, scanning for any available ready seller at that price or lower, performing a transaction to sell the option to the customer and storing information regarding said option until expired or exercise whichever is first.

18. The method according to claim 17, further comprising the steps of receiving a customer request to exercise an option, performing a transaction to fully paid for the cargo service upon exercise to the customer in accordance with the terms of the option and modifying the database to reflect the full payment of the cargo service pursuant to the option.

19. The method according to claim 13, wherein the calculation of the option price is based in part upon pricing information that is satisfied by more than one carrier cargo systems.

20. The method according to claim 13, wherein the calculating steps of the option price is based in part upon the formula below.

Option price = LC*D*L*C*R*V*W*T*Q*A*CO

where LC is the load capacity times the base price for the option, D is a factor related to a desired number of weeks before departure date, L is a factor concerning the expected demand on the requested route, C is a factor concerning loyalty, R is a factor concerning flexibility, V is a factor concerning the volatility of the cargo freight prices, W is a factor concerning the weather on the departure date, T is a factor concerning timing of flight date such as in holiday period or otherwise, Q is factor for type of cargo, A is for type of plane and CO is for number of competition on the same route.

21. Computer executable process steps operative to control a computer, received input from user terminal and query cargo system terminal, stored all inputs on a computer readable medium for determining a price of an option to purchase or sell the right to buy an cargo service, display all open options both bid and offer quotations on-line comprising;

a step to receive departure date

a step to assign the load capacity factor for a particular flight and to receive this factor at the controller,

a step to receive a base price for the option on-line,

a step to assign the expected demand factor on the requested route and to receive this factor at the controller,

a step to check the loyalty factor of the potential customer at the cargo system by scanning account records and to receive the loyalty factor of the potential client at the controller,

a step to receive the flexibility factor at the controller as sent by the client at the user terminal,

a step to calculate the volatility of the cargo prices on real-time at the cargo system, link this to a factor and to receive this factor at the controller,

a step to assign a factor linking the predicted weather on the departure date and to receive this data at the controller,

a step to assign a factor linking the timing of the flight date such as in holiday period or otherwise at the cargo system and to receive this data at the controller,

a step to assign a factor as determine by the customer inputting the type of cargo and to receive this factor at the controller,

a step to assign a factor as determine by the cargo system for the type of plane and to receive this factor at the controller,

a step to assign a factor as determine by the cargo system as to the number of competitors for this route and to receive this factor at the controller,

a step to output the option price,

and step to ask the customer to accept or reject or change input criteria.

22. A method of pricing an option to pay for a cargo freight route, comprising the steps of :

inquiring on a cargo freight price for a particular route;

receiving said cargo freight price;

receiving an offer to pay for a given price an option to pay for within a particular period, for a particular route, the freight services and purchasing said option at option price.

23. The method according to claim 22, further including the steps of using said option to pay for the freight cargo service.

24. The method according to claim 22, wherein said step of inquiring on an cargo flight route includes providing information including the date of departure, flexibility, type of cargo, name of user and route criteria.

25. A data processing apparatus for originating, bidding, offering, selling an option to pay for a cargo service, comprising:

a user terminal adapted to communicate with a central controller,

said central controller adapted to communicate with various carrier cargo system and to receive their data based on the first communication from the user terminal and to calculate a price of an option to pay for freight cargo services within a future period, for a particular route.

Said user terminal adapted to transmit to the central controller option pricing information comprising the date of departure, flexibility, type of cargo and name, linking together with carrier cargo systems terminal adapted to transmit to central controller option pricing information such as load capacity, demand, loyalty, volatility of cargo prices, weather, type of plane and number of competition and further adapted to receive from the central controller a price of an option satisfying all these factors.

26. The apparatus according to claim 25, wherein said terminal is adapted to transmit a customer request to purchase the option and further adapted to perform a credit card transaction to sell the option to the customer.

27. The apparatus according to claim 26, wherein said terminal is adapted to transmit a customer request to exercise an option and further adapted to perform a credit card transaction to fully pay for the freight cargo service to the customer in accordance to the terms of the option.

28. The apparatus according to claim 26, wherein said terminal is adapted to transmit a seller (non-carrier) request to sell a pre-owned option and further adapted to perform a credit card transaction to credit the payment from the sell of the option to the seller/customer and debit the payment from the buyer while updating all entries and claims immediately.